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regarding

The Federal Emergency Management Agency's Urban Search & Rescue Program in Haiti: How to Apply Lessons Learned at Home

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Thank you Chairwoman Norton, Ranking Member Diaz-Balart, and distinguished members of the Subcommittee on Economic Development, Public Buildings and Emergency Management for this opportunity to discuss the Federal Emergency Management Agency's Urban Search & Rescue Program in Haiti: How to Apply Lessons Learned at Home.

My name is Dave Downey; I have been a firefighter for 28 years and currently serve as the Chief of Training and Safety with Miami-Dade County Fire Rescue in south Florida. I also serve as a Task Force Leader with Florida Task Force 1 (FL-TF1) which is one of the 28 task forces that comprise the National Urban Search & Rescue (US&R) Response System under the Department of Homeland Security and the Federal Emergency Management Agency (DHS/FEMA). Additionally, I serve as the East Coast Task Force Leaders Representative for nine task forces in the Eastern Division of the National System.

I have been a member of FL-TF1 since 1991 and have responded to disasters domestically on behalf of DHS/FEMA including Hurricane Opal, the World Trade Center, and Hurricane Katrina and also internationally on behalf of USAID/OFDA including the Turkey earthquake and most recently the earthquake in Haiti.

Today I am speaking from the perspective of a first responder, as the Task Force Leader of FL-TF1, who led an 80 person search and rescue team to Haiti on January 14, 2010. I will discuss my direct observations from the mission with the goal of identifying lessons learned that can be applied to the National US&R System and better prepare our teams for future disasters. I have tried to organize my thoughts into two broad categories: mobilization and on site operations.

Mobilization

On January 12, 2010, shortly after news that a magnitude 7.0 earthquake had struck the country of Haiti, FL-TF1 command staff elected to notify the members of the task force and roster a team. Based on the preliminary reports it was clear that this would be a catastrophic event requiring tremendous amounts of international aid including significant urban search and rescue and humanitarian relief. Even though FL-TF1 is not currently a US&R task force designated by USAID for international response, our close proximity to the island coupled with our past international response and training experience necessitated us to be prepared in the event we were called upon.

Early the next morning I was notified, by the State of Florida's acting Emergency Management Director that FEMA intended to activate our task force to respond to Haiti. Based on this preliminary information, we began to mobilize our task force. At 1345 hours on January 13, 2010, we received our official Activation Order from DHS/FEMA as a Type I (70 person) task force with an additional ten (10) support personnel. Our task force was assigned as a USAID asset through an interagency agreement executed between DHS/FEMA and USAID.

There were no pre-established modes of transportation so the remainder of the day would be spent trying to determine how our search and rescue personnel and a 62,000 pound equipment cache would get to Haiti. My assumption of our primary mode of transportation was military airlift and this was because our entire equipment cache and personnel are mobilized just off the flight line of Homestead Air Reserve Base in south Miami-Dade County. Preliminary discussion with USAID/OFDA Logistics in Washington, who would be tasked with acquiring transportation, initially suggested 1or 2 United States Coast Guard C-130's. My initial concern was that this airframe would not permit the 80 rescue personnel and the entire equipment cache to travel together. Therefore a smaller contingent of personnel would have to respond with the cache followed by the balance of the team on a subsequent flight. While this option was not ideal, we began to plan for this method of transportation. This means of transportation never materialized and later in the day we were notified that the personnel and cache would be transported by commercial carrier.

Logistics personnel from our task force were then charged with loading the entire cache into our trucks and transporting it to the commercial carrier located at Miami International Airport, some 40 miles north of our location. The carrier would then be tasked with loading the cache so that it could be transported on two planes. Both planes were scheduled to depart Miami for Port-au-Prince within one hour of each other the following morning. This was acceptable because the commercial carrier hired to transport the team would depart early the next morning as well.

At 0800 hours on January 14, 2010, a commercial aircraft with all 80 personnel departed Miami and arrived in Port-au-Prince at approximately 1030 hours. As expected, the operations at the airport in Port-au-Prince were chaotic and securing the necessary transportation to get our personnel to the US Embassy, where we were scheduled to report, became a challenge. Even more of a concern was the fact that the two planes carrying our equipment cache were delayed and then diverted to Santo Domingo. Our task force personnel departed the airport leaving a small contingent of staff behind to await the arrival of the equipment cache.

Ultimately, one plane loaded with primarily base camp supplies arrived the next morning- almost 24 hours after the arrival of personnel- and the other plane with our rescue cache, the equipment most

essential to the mission, didn't arrive until 36 hours after the arrival of the team. Of particular note is the fact that our first rescue of a 23 year old student was performed during the early hours of January 15, 2010, with rescue equipment loaned to us by the US&R team from Los Angeles County. The fact that we were familiar with and able to use the equipment loaned to us is a testament to the standardized equipment cache and training methods currently employed in the National US&R System, but a lesson I would have preferred to learn on a training mission.

In 2003, funding became available to each of the 28 task forces to purchase ground transportation assets. This included semi-tractor trailers, box trucks, command, and support vehicles. This one time allotment allowed each task force to purchase sufficient resources with the goal of moving the entire cache over the road up to 1,200 miles. This project was tested extensively during the 2004/05 hurricane season and, with the exception of a few minor issues, seems to work. There has never been any additional funding for sustainment of these vehicles and as for transportation of the personnel, task forces must still relay on commercial carriers to provide buses. In recent response history, it has been determined that virtually every contract carrier for buses has been secured by DHS/FEMA for evacuation purposes and therefore it may be extremely difficult to obtain them for the US&R task forces in the future. Additional funding is necessary to provide for the sustainment of the current fleet as well as for the purchase of personnel transports to ensure a rapid response.

Prior to the purchase of vehicles, every task force had equipment cache load plans for military and civilian airlift. While we have retained these plans, there are no pre-assigned assets available in the event that air transport is needed. This was evident during the response to Haiti. Pre-identification of specific airframes capable of moving US&R assets rapidly and efficiently is essential not only for future international deployments but for cross-country response as well.

On Site Operations

The breadth of this disaster was overwhelming. As I stood atop a collapsed structure on the first day, I looked 360 degrees and all I saw were other structures in the same condition. My first thought was where do we start? Our priorities were already established: we were directed to focus on hospitals, schools/universities, multi-story buildings, and any other large structures. Additionally, we were guided to many rescue sites by locals. Haitians would come to us with information on locations where they would hear someone in the rubble and we would also be provided with text messages sent from survivors inside collapsed structures.

While the priorities seemed logical, the mapping and sector assignments were woefully inadequate. The maps that we used for the first few days were 2006 tourist maps provided by the embassy. These maps lacked sufficient details such as street names and the locations of the significant structures that we were supposed to prioritize. I felt as though we were back in 2005 when we first arrived in New Orleans, the day after Hurricane Katrina, and were using maps we had acquired from service stations in the area. I am well aware of the mapping capabilities of the National Geo-Spatial Intelligence Agency (NGA) and question why those assets were not deployed to Haiti. Once internet access was secured, the use of "Google Earth" coupled with our handheld GPS units made location mapping a bit easier; however, the level of sophistication was still very primitive compared to what I knew exists.

In addition, there were no pre-established GPS formats i.e., Lat/Long, UTM, USNG, etc. for location reporting and directing. We would and did receive coordinates in a myriad of formats

which necessitated frequent conversions. This became an issue when, as an example, our team was trying to transport two rescued survivors to a field hospital. Our team had just pulled two children from beneath the rubble yet we were delayed as a result of having to re-format our GPS units to the proper coordinates of the field hospital. Search sectors were developed along geographical borders (streets and avenues) rather than like-sized grids. This created varied shapes and sizes to each sector and with the lack of adequate maps, sector boundaries were difficult to determine.

It is my recommendation that the capabilities of the NGA must be incorporated early on in disaster response. Pre-scripted mapping packages must be identified and adherence to the National Grid Reference System must be implemented for all search and rescue operations to ensure that priority areas are identified and grid searches are accomplished in the most expeditious fashion possible.

While the transportation challenges getting to Haiti were already discussed, on site operations were dramatically hindered by the lack of transportation assets available. Simply put, we had no efficient way of getting personnel and equipment out to perform search and rescue on a daily basis-- this was probably the greatest struggle we had in performing our job. Every day, task forces competed against both each other and with the needs of the embassy for the use of a small contingent of transport vehicles. Again I draw on my past experience with Hurricane Katrina, when it was not vehicles but rather boats that we needed everyday to perform our mission. In Haiti, hours were wasted everyday trying to secure transportation. Task forces should deploy as self-sufficient as possible and this includes their transportation. We should not expect the local infrastructure that is already devastated by a disaster to supply transportation. If a task force is deployed without their transportation assets, as was the case in this response, then dedicated on site transportation must be secured. This could be supplied by the military or other contract transport services.

Establishing a continuum of medical care is essential for the long-term survival of victims removed from collapsed structures. The function of the US&R medical personnel is threefold: to care for the team members, to care for the victims in the collapsed environment, and to care for the canines. The task force does not have the capability to provide long-term definitive care once the victim is removed. Medical assets must be on site early and ready to accept and care for the victims removed from the structures. As an analogy, a hazardous materials team will not make entry into a contaminated environment until the decontamination process is established. Likewise, US&R elements should not be engaged until there are medical care facilities established to receive the victims. What we experienced in Haiti was a lack of medical facilities that were able to receive and more importantly to care for the victims we rescued. Integration with Disaster Medical Assistance Teams (DMAT's) is a viable option as they are capable of providing the care necessary to support these victims and the US&R operations.

An ongoing issue that has yet to be resolved is that of security for task forces operating at a disaster site. During our Haiti response, our personnel operated at every search and rescue site without force protection. While provisions were made to evacuate an area if a confrontation developed, the reality was that based on the damage, topography, and unfamiliarity of the area it would have been difficult to actually escape. Only once did a squad feel threatened and this was quickly defused by task force members that were Haitian-American and spoke French-Creole. However, this bilingual luxury was not the norm for the other task forces. There are no easy answers when dealing with local customs, especially on an international response, and task force members are reminded daily at every briefing to be aware of their surroundings and always to keep one person as a designated safety officer.

This mission wasn't without success. I was pleased to see that the years of work put into developing the right equipment caches and training personnel on the right techniques paid off. Every search and rescue aspect of US&R was successful. Our search canines were remarkable: all 11 of the victims we saved were found first by a canine. The technical search aspect of our operations, using cameras and listening devices, worked. The breaching and breaking tools and techniques worked. The medical care provided to those trapped for extended periods of time worked. We should be proud of the fact that the time and money spent on tools and training has paid off. However, we can not rest on our laurels. We must continue to train and look for new ways, through emerging technology, to improve our capabilities and this can only be accomplished with adequate funding and support. We have not reached perfection but we are on the right track.

Summary

The efforts of the six US&R task forces from the United States coupled with the other 40-plus teams from around the globe resulted in the largest number of survivors rescued in history. We should all be proud of this achievement.

During collapse search and rescue, besides the type of construction we are confronted with, our greatest enemy is time. To be successful, we must be able to get the right resources to the right place as quickly as possible in order to save as many lives as possible. To this end, task forces must ensure operational readiness and the implementation of pre-established transportation assets is essential.

This year marks the 25th anniversary of the Mexico City earthquake and the first organized US&R response to such a disaster from the United States. Since that time, the United States has developed a robust national US&R capability that today we know has incorporated the equipment, training and most importantly personnel to be successful. This capability is built on a foundation supported by the 28 sponsoring agencies, countless participating agencies, and affiliated personnel that collectively provide the 6,000 member ready reserve that we know as the National US&R Response System. These agencies support this national system sometimes at the expense of local service and this cannot continue. Supportive legislation as defined in Chairmen Oberstar's HR 3377 coupled with adequate funding is necessary for the National US&R program as well as for essential companion elements, such as the NGA, to sustain current capabilities as well as to explore new opportunities.

Again I would like to thank Chairwoman Norton, Ranking Member Diaz-Balart, and the distinguished members of this Subcommittee for the privilege of appearing before you today. I would be pleased to answer any questions you may have.